

REMARKS

Reconsideration is requested.

Claims 1-12, 14, 16, 22, 26, 32 and 34 have been canceled, without prejudice. Claims 13, 15, 17-21, 23-25, 27-31, 33 and 35-49 are pending. Claims 37-49 have been withdrawn from consideration. The claims have been amended, without prejudice, for clarity.

Reconsideration and withdrawal of the restriction requirement, at least in so far as it pertains to claims 37-41, 43-46 and 48-49, are requested, as the Examiner has indicated that the products of these claims (i.e., the primers according to claim 17 (and 36)) have been examined and found allowable over the art. See page 8 of the Office Action of November 7, 2005. A separate further Second Request for Reconsideration and Clarification of Decision Mailed June 18, 2004 is attached directed to the Group Director of TC1600. The Examiner is requested to redirect the attached separate further Second Request in the event the same should be considered by a different office of the Patent Office.

Rejoinder and allowance of at least claims 37-41, 43-46 and 48-49 with claims 13, 15, 17-21, 23-25, 27-31, 33 and 35-36 are requested as if the Examiner has examined the products of these claims and found them allowable, requiring prosecution of the claims to the novel and non-obvious products would be an undue burden on the applicants, and create an unnecessary "rework" application for the Patent Office. Moreover, the Examiner's apparent examination of the product claims (i.e., claims requiring the presence of novel and non-obvious primers) indicates that examination of the subject matter of Group II (in part, i.e., claim 37), and Groups III and IV (claims 43,

44, 45 and 46 due to their dependence on claims defining novel and non-obvious products) of the Decision dated June 18, 2004, was not an undue burden on the Examiner.

The broader claims amended above have been revised to include the details of claims 14 and 16. No new matter has been added.

As noted in the Remarks of the Amendment filed March 10, 2003, the Information Disclosure Statement filed March 13, 2001, which lists, among other things, document DE 197 16 456, is submitted to have been filed in compliance with the Rules. Specifically, the cited document was listed in the International Search Report from PCT/EP99/07065 and the relevance of the same is indicated as category "P" and "X". The International Search Report was filed with the Information Disclosure Statement and previously indicated as having been received by the Patent Office in the Notification of Acceptance dated September 14, 2001. A translation into the English language of the document should not be required. The Examiner is requested to appreciate in this regard that page 600-119 of the August 2001, copy of the MPEP indicates that

"the Examiner will consider the documents cited in the International Search Report in a PCT National Stage application when the Form PCT/DO/EO/903 indicates that both the International Search Report and the copies of the documents are present in the National Stage file".

Form PCT/DO/EO/903 is the Notification of Acceptance referred to above.

The Examiner is also requested to see page 600-122 of the August 2001 version of the MPEP which indicates as follows:

"Where the information listed [in a PTO-1449 Form] is not in the English language, but was cited in a Search Report or other action by foreign patent office in a counterpart foreign

application, the requirement for a concise explanation of relevance can be satisfied by an English language version of the Search Report or Action which indicates the degree of relevance found by the foreign office. This may be an explanation of which portion of the reference is particularly relevant, to which claims it applies, or merely an "X", "Y", or "A" indication on a Search Report."

The more recent Rev. 3, August 2005 version of the MPEP includes the above quoted passage in §609.04(a)III.

Accordingly, nothing further should be required.

For completeness, the applicants filed an English language translation of the cited DE 197 16 456 on March 10, 2003. The document may be found in the Patent Office Image File Wrapper scanned as the last 12 pages of the "Applicant Arguments/Remarks Made in an Amendment" entered as a record dated March 10, 2003.

Return of an initialed copy of the previously submitted PTO-1449 Form, indicating consideration of the listed document, or return of a PTO 892 Form listing the same, is again requested.

The Section 112, second paragraph rejection of claims 13-16 and 18-20 is traversed. The claims are submitted to be definite and withdrawal of the rejection is requested as the addition of a further step, as allegedly required by the Examiner, is not required for one of ordinary skill in the art to appreciate the metes and bounds of the claim. Withdrawal of the Section 112, second paragraph, rejection is requested.

The Section 103 rejections of
claims 13-16, 18-24 and 29-34 over the combinations of
(1) Jannes (U.S. Patent No. 6,025,132),

(2) Claas (Journal of Virological Methods 1992; 39 (1-2) 1-13, abstract only),
(3) Paton (Journal of Clinical Microbiology 1992; 30(4):901-904, abstract only),
(4) Kinchington (Investigative Ophthalmology and Visual Science 1994;
35(12):4126-34, abstract only),

(5) Saikku (Clinical Microbiology and Infection 1997; 3(6):599-606),

(6) Gilbert (Journal of Clinical Microbiology, 1996; 34(1):140-143),

(7) Fluitt (WO 95/13396), and

(8) Echevarria (Journal of Clinical Microbiology May, 1998; 36(5):1388-1391);

and

claims 25-28 over the combination of the above-noted references (1)-(8) in
further view of

(9) Fluitt (GenEmbl Accession No. A44457) and

(10) Jannes (WO 96/00298, January, 1996; GenEmbl Accession No. A47982),

are traversed. Reconsideration and withdrawal of the rejections are requested in
view of the following distinguishing comments.

Initially, the applicants note that the Examiner's restatement of the claims on
page 4 of the Office Action of November 7, 2005, does not reflect the broader aspects
of the claimed invention. Specifically, for example, not all of the claims require reverse
transcription, detection "with a probe specific for each of the amplified products" or
immobilization on a support, as suggested by the Examiner.

Initially, the applicants note the Examiner has required a combination of nine references to allege that the method, apparently limited to only one primer set and one probe, wherein one of the primers (i.e., SEQ ID NO. 19) has been indicated as not being taught or suggested by the art (see, page 10 of Paper No. 11), was obvious. The Examiner's consideration and interpretation of the art has been made, with due respect, with an impermissible use of hindsight.

The Examiner acknowledges that Saikku does not teach simultaneous amplification of all the nucleic acids from the pathogens that might be present in a sample or specific primers and probes to the specific regions claimed. See, page 7 of Paper No. 11 and page 4 of the Office Action dated November 7, 2005. The Examiner is understood therefore to have asserted that the teachings of other cited documents relating to RT-PCR with a list of organisms that are suspected of being responsible for respiratory tract infections to allege the obviousness of the presently claimed invention.

Motivation for such a combination however is not found in the cited art.

Initially, the applicants note that Saikku is not believed to teach

“that nucleic acid detection methods to diagnose respiratory diseases provides sensitive and specific diagnoses within 24 hours”,

as alleged by the Examiner at page 4 of the Office Action dated November 7, 2005.

The Examiner is understood to be relying on the last paragraph before the “treatment” section on page 602 of Saikku. The applications however believe this passage reads as follows:

“Nucleic acid (NA) detection seems to be the diagnostic method of the future (...).”, “(...) diagnostic companies are developing kits based on NA amplification for *Legionella spp*,

M. pneumoniae and *Chlamydia pneumoniae*.”) (emphasis added).

The applicants believe that this paragraph clearly demonstrates that the author, who is believed to at least be of ordinary skill in the art, considers the nucleic acid detection method as a technology of the future. Such a teaching, at best, suggests that it may have been obvious-to-try to make the presently claimed method. Obvious-to-try however is not sufficient to establish *prima facie* obviousness.

Although the author mentions in his Table 1 many pathogens responsible for the respiratory tract infections, still, he explicitly limits his study and examples to 3 bacteria, using future tense to describe the technology for detecting these 3 bacteria.

Moreover, the Examiner acknowledges that

“Saikku et al. does not teach simultaneous amplification of all of the nucleic acids from the pathogens that might be present in a sample or specific primers and probes to the specific regions claimed”. See page 4 of the Office Action dated November 7, 2005.

Saikku would not have been used by one of ordinary skill in the art as motivation to produce the presently claimed method for the simultaneous detection of up to 11 different pathogens.

Concerning Gilbert et al., as already explained in the description of the present patent application, the method used requires different assay conditions: for RSV one protocol is carried out, for PIV or picornaviruses another protocol is carried out (see page 141, first column, “for RSV, (...) combined annealing-extension at 70°C for 2 min”; “for PIV and picornaviruses (...) annealing at 55°C for 1 min, and extension at 70°C for 1 min”).

Moreover the applicants believe the Examiner's assertion that "Gilbert et al. teaches simultaneous amplification" (see page 4 of the Office Action dated November 7, 2005) is an incorrect interpretation of the document.

It is correct that the term "simultaneous" is used many times in the publication but always associated with "infections". Indeed, the authors are understood to have wanted to show that there are different organisms involved in the infection. But the way they have chosen, using a different protocols for different pathogens, would not have motivated one of ordinary skill to have made the presently claimed invention.

The authors did raise the problem of how time consuming their method was which "may take up to several days" and of the costs-effectiveness (see page 142, 2nd column, first paragraph). While the cited art may have mentioned several organisms responsible for the respiratory tract infections, the study of the cited art is limited to the study to 3 pathogens.

This latter characteristic is common to all of the publications cited by the Examiner. None of these documents could propose an amplification method for the detection of more than 3 different organisms simultaneously, as is provided by the presently claimed invention.

It is clear to the applicants that the ordinarily skilled person, with so many publications, all of them leading him in the same direction of a limitation of the number of organisms to be detected (1 to 3 maximum), in an inefficient and time-consuming method, would not reach the presently claimed invention.

The claims are submitted to be patentable over the art of record and withdrawal of the Section 103 rejections is requested.

The applicants acknowledge, with appreciation, the Examiner's indication that claims 17, 35 and 36 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The applicants further acknowledge, with appreciation, the Examiner's indication that

"the prior art does not teach or suggest the primer pairs recited for each of the pathogens in claim 17, i.e., SEQ ID NOs: 17-21 and 35-52." See page 8 of the Office Action dated November 7, 2005.

The undersigned notes that in addition to the above-noted primers, claim 36 includes the primers of SEQ ID NOs: 22 and 23. The undersigned therefore presumes that the Examiner also believes that the prior art does not teach or suggest the primer pairs of SEQ ID NOs: 17-23 and 35-52 however the Examiner is requested to advise the undersigned if SEQ IDNOs: 22 and 23 have been found in the art.

The claims are submitted to be in condition for allowance. An indication of the allowance of at least claims 13, 15, 17-21, 23-25, 27-31, 33, 35-41, 44-45 and 48-49, is requested. The Examiner is requested to contact the undersigned in the event anything further is required in this regard.

Respectfully submitted,

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